

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Attorney Docket No. 053969-0126**

Applicant: Koichi TAMURA, et al.  
Title: DEMODULATION APPARATUS AND DEMODULATION  
METHOD FOR MOBILE COMMUNICATION  
Application No.: 09/829,048  
Filing Date: April 10, 2001  
Examiner: Ahn, Sam K.  
Art Unit: 2634

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

### **RELEVANCE OF EACH DOCUMENT**

Any document listed on the attached PTO/SB/08 was cited as being relevant during the prosecution of the corresponding Chinese application. Item of information A1 is a U.S. patent that is a counterpart to item of information A2. The absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP§609).

A translation of a portion of a Chinese Office Action that issued July 9, 2004 with respect to a counterpart Chinese patent application is provided below.

This application relates to a demodulation apparatus and a demodulation method for mobile communication, as stated in the description, the technical matter to be dealt with in this application is to provide a demodulation apparatus and a demodulation method for mobile communication to fulfill path search with high accuracy and high speed and provide good receiving characteristics. Through examination, now the following examination opinions are provided:

1. The technical solution of claim 1 has no novelty prescribed in Art. 22, para. 2 of the Patent Law. Ref. 1 discloses a CDMA receiver demodulation apparatus having the capability of selecting signals that meet a predetermined condition out of signals incoming via different paths, combining and outputting the signals and specifically discloses the technical features: the receiver demodulation apparatus comprises a path capturing/holding section for comparing the search paths output from a searcher section with the tracking paths output from a tracking section and capturing/holding a plurality of paths according to the comparison result; a correlation demodulation path selection section for selecting the related demodulation paths on the basis of the path states output from the path capturing/holding section and

the correlation values output from the tracking section; multi-path separation means for separating a plurality of paths of the demodulation paths so that the demodulation data is output (see p. 5, lines 13-28, p. 6, lines 10-12 of the description). By comparison of the technical solution claimed in said claim with the technical contents disclosed in said reference, the difference is merely that what is written in claim 1 is "threshold selling means" while what is written in ref. 1 is a tracking section for outputting the tracking paths, but the former is a generic concept of the latter, therefore the technical solution of claim 1 has no novelty.

2. Claims 2, 3, 5 further define claim 1, the technical feature that the threshold selling means sets the threshold based on correlation value information for signals selected in their characterizing portions has been disclosed in ref. 1 (see p. 6, lines 10-12, p. 10, lines 21, 25-26 of the description): a tracking section for obtaining the tracking paths based on the correlation values of the search paths (the peak value of the correlation levels), the function performed in ref. 1 and this application for a patent for invention is to fulfill the effect of path selection, the other technical feature "sets the threshold based on correlation value information for signals selected in the previous cycle or the current cycle" (setting the tracking paths based on the peak value of the correlation levels of the search paths in the previous cycle or the current cycle) belongs to publicly-known general knowledge of those skilled in the art. Therefore, when claim 1 referred to cannot be accepted for having no novelty, the technical solutions of said claims have no inventiveness prescribed in Art. 22, para. 3 of the Patent Law for failure to possess prominent substantive features, nor represent a notable progress.
3. Claim 4 further defines claim 1, the technical feature the said signal selecting means selects signals that are signals of different path locations and that are equal to or above the threshold in its characterizing portion has been disclosed in ref. 1 (see p. 6, lines 10-12, p. 7, the last paragraph of the description), the function performed in ref. 1 and this application for a patent for invention is to fulfill the effect of effective path detection, the other technical feature "path locations of the signals selected in the previous cycle" belongs to publicly-known general knowledge of those skilled in the art. Therefore, when claim 1 referred to cannot be accepted for having no novelty, the technical solution of said claim has no inventiveness prescribed in Art. 22, para. 3 of the Patent Law for failure to possess prominent substantive features, nor represent a notable progress.

4. Dependent claim 6 further defines claim 1, but the additional technical feature in its characterizing portion has been disclosed in ref. 1 (see p. 11, lines 15-16 of the description). Therefore, when claim 1 referred to has no novelty, the technical solution of said claim has no novelty prescribed in Art. 22, para. 2 of the Patent Law either.
5. Dependent claims 7, 8 further defines claim 1, but the additional technical features in their characterizing portion have been disclosed in ref. 1 (see p. 10, the last paragraph, p. 8, lines 1-5 of the description). Therefore, when claim 1 referred to has no novelty, the technical solutions of said claims have no novelty prescribed in Art. 22, para. 2 of the Patent Law either.
6. Claims 9-16 are method claims corresponding to claims 8-11, according to the reasons similar to those for the comments on claims 1-8, the technical solutions of said claims have no novelty prescribed in Art. 22, para. 2 of the Patent Law or have no inventiveness prescribed in Art. 22, para. 3 of the Patent Law.
7. Claims 17-24, 29-30 claim "A recording medium ...", their characterizing portions relate to a demodulation method and a control program for the demodulation method, no substantive contribution is made to the structure of the claimed subject matter "recording medium", it shows that the claimed subject matter doesn't conform with the contents of the technical solutions, thus making the protection scope of said claims unclear, which is not in conformity with the provision of Rule 20, para. 1 of the Implementing Regulations of the Patent Law.
8. Claims 25, 27 are respectively dependent claims of claims 1, 9, the contents of their characterizing portions do not define the technical features of the claims referred to, but relate to explanation of the object of the predetermined condition, therefore it is not in conformity with the provision of Rule 23, para. 1 of the Implementing Regulations of the Patent Law on writing a dependent claim.
9. The technical features of dependent claims 26, 28 have been written in the claims referred to, the repetition of the same technical feature makes the protection scope of said claims unclear, which is not in conformity with the provision on clarity and conciseness of Rule 20, para. 1 of the Implementing Regulations of the Patent Law."

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

**STATEMENT**

The undersigned hereby states in accordance with 37 CFR §1.97(e)(1) that each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to filing of this Statement.

Applicants' statements regarding the Chinese Office Action are based on a partial translation that Applicants' representative obtained. These statements should in no way be considered as an agreement by Applicants with, or an admission of, what is asserted in the Chinese Office Action.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

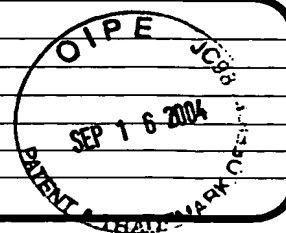
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Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  Date Submitted: September 16, 2004 (use as many sheets as necessary)				<b>Complete if Known</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>09/829,048</td> </tr> <tr> <td>Filing Date</td> <td>04/10/2001</td> </tr> <tr> <td>First Named Inventor</td> <td>Koichi TAMURA</td> </tr> <tr> <td>Group Art Unit</td> <td>2634</td> </tr> <tr> <td>Examiner Name</td> <td>S. K. Ahn</td> </tr> <tr> <td>Attorney Docket Number</td> <td>053969-0126</td> </tr> </table>		Application Number	09/829,048	Filing Date	04/10/2001	First Named Inventor	Koichi TAMURA	Group Art Unit	2634	Examiner Name	S. K. Ahn	Attorney Docket Number	053969-0126
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U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	6,222,834		KONDO	04/24/2001	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	A2	CN	1206967			02/03/1999		ABS

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>

Examiner Signature	Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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